

Serial No. 09/616,232
Art Unit No. 2175

LISTING OF CLAIMS

B1

1. (currently amended) Method of producing a compact representation of a data package, the data package comprising at least one of meta-data and associated data elements and meta-data and associated data packages, where the meta-data comprises at least one of name and type identifications for the data element and name and type identifications for the data package, comprising the steps of:

- a) arranging of the data packages in a sequence;
- b) searching of the meta-data for defined, non-application-dependent name and type identifications; and
- c) representing the identifications found in step b) by replacing the identifications with defined substitutes which require little storage space.

B2

2. (currently amended) Method of producing a compact representation of a structure of meta-data and data elements, with the correlation of meta-data with data, comprising data elements or a sub-structure of a structure being performed by a program and with the meta-data comprising at least name and type identifications for the data, comprising the steps of:

Serial No. 09/616,232
Art Unit No. 2175

- B2
- a) combining of meta-data and associated data to form a plurality of data packages;
 - b) arranging the data packages in a sequence;
 - c) searching the meta-data for defined, non-application-dependent identifications; and
 - d) representing the identifications found in step c) by replacing the identifications with defined substitutes which require little storage space.
3. (previously amended) Method according to claim 1 further comprising the step of:
- storing the result of steps a-c on a storage medium.
4. (previously amended) Method according to claim 2 further comprising the step of:
- storing the result of steps a-d on a storage medium.
5. (previously amended) Method according to claim 1 further comprising the step of:
- transmitting the result of steps a-c to a data-processing device.
-

Serial No. 09/616,232
Art Unit No. 2175

6. (previously amended) Method according to claim 2 further comprising the step of:

B3
transmitting the result of steps a-d to a data-processing device.

7. (original) Method according to claim 2 wherein the meta-data is not transmitted at the same time but the correlation is performed by a program at the time of restoration.
-

8. (previously amended) Method according to claim 1, characterized in that the data package is an object which contains at least the following data elements with the following non-application-dependent identifications:

34
object name, object type and object attributes.

9. (previously amended) Method according to claim 2, characterized in that the data package is an object which contains the following data elements with the following non-application-dependent identifications: object name, object type, object version and object attributes.
-

- B5
10. (original) Method according to claim 5, wherein the data package is a Java object.
-

Serial No. 09/616,232
Art Unit No. 2175

B6
11. (previously amended) Method according to claim 6,
wherein the data package is a Java object.

12. (previously amended) Method according to claim 1,
wherein the data package is in XML (extendable markup
language).

13. (original) Method according to claim 1 wherein the
non-application-dependent identifications object name,
object type, object version and object attributes are
represented by defined substitutes in a TLV coding.

14. (original) Method according to claim 2 wherein the
non-application-dependent identifications object name,
object type, object version and object attributes are
represented by defined substitutes in a TLV coding.

B7
15. (original) Method according to claim 1 wherein the
non-application-dependent identifications object name,
object type, object version and object attributes are
represented by defined substitutes in the TLV coding
laid down by ISO 8825 Basic Encoding Rules.

16. (original) Method according to claim 2 wherein the
non-application-dependent identifications object name,
object type, object version and object attributes are
represented by defined substitutes in the TLV coding
laid down by ISO 8825 Basic Encoding Rules.

Serial No. 09/616,232
Art Unit No. 2175

B7
17. (original) Method according to claim 1 wherein the data package is a data structure which contains data elements with the following non-application-dependent identifications:

name, type, version and attributes of the data element.

18. (previously amended) Method according to claim 2 wherein the data package is a data structure which contains data elements with the following non-application-dependent identifications:

B8
name, type, version and attributes of the data element.

19. (previously amended) Method according to claim 1 wherein steps a-c are performed by a program, with a table to correlate non-application-dependent identifications with their associated substitutes being contained in the program.

B9
20. (original) Method according to claim 2 wherein steps a)-d) are performed by a program, with a table to correlate non-application-dependent identifications with their associated substitutes being contained in the program.

310
21. (previously amended) Method according to claim 1 comprising the following further steps:

Serial No. 09/616,232
Art Unit No. 2175

- aa) searching of the meta-data for defined, application- dependent identifications;
- bb) representation of the application-dependent identifications found in step aa) by defined substitutes which require little storage space;
- cc) storage of the result of steps aa)-bb) on a storage medium or transmission of the result of steps aa)-bb) to a data-processing device.

310
22. (previously amended) Method according to claim 2 comprising the following further steps:

- aa) searching of the meta-data for defined, application- dependent identifications;
- bb) representation of the application-dependent identifications found in step aa) by defined substitutes which require little storage space;
- cc) storage of the result of steps aa)-bb) on a storage medium or transmission of the result of steps aa)-bb) to a data-processing device.

23. (original) Method according to claim 21, wherein for each application a dedicated table containing defined application-dependent identifications and associated substitutes is loaded.

311

Serial No. 09/616,232
Art Unit No. 2175

24. (original) Method according to claim 22, wherein for each application a dedicated table containing defined application-dependent identifications and associated substitutes is loaded.

B11
25. (original) Method according to claim 1 wherein the makeup, definition and length of the substitutes are laid down by standard ISO/IEC 7816 or 8825.

26. (original) Method according to claim 2 wherein the makeup, definition and length of the substitutes are laid down by standard ISO/IEC 7816 or 8825.

27. (previously amended) Method according to claim 25, characterized in that the substitute occupies a maximum of 2 bytes of storage space.

B12
28. (previously amended) Method according to claim 26, characterized in that the substitute is made up of class, constructed flag and ID.

29. (original) Method according to claim 21, comprising the following further step:

B13
aaa) application of a current compression algorithm to the result of steps aa)-bb); and

Serial No. 09/616,232
Art Unit No. 2175

bbb) storage of the result of step aaa) on a storage medium or transmission of the result of step aaa) to an data-processing device.

30. (original) Method according to claim 22, comprising the following further step:

aaa) application of a current compression algorithm to the result of steps aa)-bb); and

bbb) storage of the result of step aaa) on a storage medium or transmission of the result of step aaa) to an data-processing device.

31. (original) Method according to claim 29 wherein the compression algorithm is the ZLIB compression algorithm.

32. (original) Method according to claim 30 wherein the compression algorithm is the ZLIB compression algorithm.

33. (original) Chip card comprising at least one nonvolatile store for storing the compact representation of claim 1.

34. (currently amended) Chip card comprising at least one [nonvolative] nonvolatile store for storing the compact representation of claim 2.

Serial No. 09/616,232
Art Unit No. 2175

35. (previously amended) Apparatus comprising at least:
- a) a data-processing device;
 - b) communications means;
 - c) a chip card, with data being exchangeable between the data-processing device and the chip card via the communications means, characterized in that a program to control a method according to claim 1 can be installed on the data-processing device and the result of the method according to claim 1 is stored on the chip card.

- B14
36. (previously amended) Apparatus comprising at least:
- a) a data-processing device;
 - b) communications means;
 - c) a chip card, with data being exchangeable between the data-processing device and the chip card via the communications means, characterized in that a program to control a method according to claim 2 can be installed on the data-processing device and the result of the method according to claim 2 is stored on the chip card.

- B15
37. (currently amended) Computer software product which can be stored in the internal store of a digital computer, containing items of software code to carry out the method of producing a compact representation of a data package, the data package comprising at least one of meta-data and associated data elements and meta-data and associated data packages, where the meta-data

Serial No. 09/616,232
Art Unit No. 2175

comprises at least one of name and type identifications for the data element and name and type identifications for the data package, comprising the steps of:

- B15
- a) arranging of the data packages in a sequence;
 - b) searching of the meta-data for defined, non-application-dependent name and type identifications; and
 - c) representing the identifications found in step b) by replacing the identifications with defined substitutes which require little storage space.
-

B16

38. (currently amended) Computer software product which can be stored in the internal store of a digital computer, containing items of software code to carry out the method of producing a compact representation of a structure of meta-data and data elements, with the correlation of meta-data with data, comprising data elements or a sub-structure of a structure being performed by a program and with the meta-data comprising at least name and type identifications for the data, comprising the steps of:

- a) combining of meta-data and associated data to form a plurality of data packages;
- b) arranging the data packages in a sequence;

Serial No. 09/616,232
Art Unit No. 2175

- BK
- c) searching the meta-data for defined, non-application-dependent identifications; and
 - d) representing the identifications found in step c) by replacing the identifications with defined substitutes which require little storage space.
-